

WHAT IS CLAIMED IS:

1. A method of manufacturing a semiconductor comprising:  
crystallizing an amorphous silicon film formed on a substrate into a polycrystalline silicon film through an annealing process, said amorphous silicon film having a plane area of 1000  $\mu\text{m}^2$  or less.
2. The method of claim 1 wherein the amorphous silicon film is 1000 Å or more in thickness.
3. The method of claim 1 wherein the amorphous silicon film is 2000 Å to 10000 Å in thickness.
4. The method of claim 1 wherein said annealing process is carried out by heating the silicon film.
5. The method of claim 1 wherein said annealing process is carried out by irradiating the silicon film with a light.
6. The method of claim 1 wherein said annealing process is carried out by irradiating the silicon film with a laser light or an infrared light.
7. A thin-film transistor comprising:  
an active silicon film which is formed of a plurality

of island-like regions arranged in parallel to each other, said island-like regions being formed of a polycrystal silicon film having a plane area of  $1000\text{ }\mu\text{m}^2$  or less.

8. The transistor of claim 7 wherein the island-like regions are formed of a polycrystal silicon film which is 1000 Å or more in thickness.

9. The transistor of claim 7 wherein the island-like regions are formed of a polycrystal silicon film which is 2000 Å to 10000 Å in thickness.

10. A method of manufacturing a thin-film transistor comprising the steps of:

forming an amorphous silicon film on a substrate;

processing said amorphous silicon film into a plurality of island-like regions having a plane area of  $1000\text{ }\mu\text{m}^2$  or less;

crystallizing an amorphous silicon film that forms said island-like regions into a polycrystal silicon through an annealing process; and

forming a thin-film transistor having at least one of said plurality of island-like regions as an active silicon layer.

11. The method of claim 10 wherein the amorphous silicon film is 1000 Å in thickness.
12. The method of claim 10 wherein the amorphous silicon film is 2000 Å to 10000 Å in thickness.
13. The method of claim 10 wherein said annealing process is carried out by heating the silicon film.
14. The method of claim 10 wherein said annealing process is carried out by irradiating the silicon film with a light.
15. The method of claim 10 wherein said annealing process is carried out by irradiating the silicon film with a laser light or an infrared light.